A. CLASSIFICATION OF SUBJECT MATTER

IPC7: F16L 55/128

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: F16L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4465104 A (WITTMAN ET AL), 14 August 1984 (14.08.84), figure 4, abstract	1-3
		
A	US 5029614 A (LARA ET AL), 9 July 1991 (09.07.91), figure 1, abstract	4
		

Ш	rurther documents are listed in the continuation of Box C		See patent family
*	Special categories of cited documents:	"T"	later document nublished after

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed
- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

annex.

- "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

1 7 -10- 2005

Name and mailing address of the ISA/

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INTERNATION SEARCH REPORT Information on the family members

06/09/03

Inter	nal application No.
PCT/N	0 03/00203

Patent document cited in search report			Publication date	Patent family member(s)		Publication date
US	4465104	A	14/08/84	CA	1165232 A	10/04/84
				JP	1002209 B	17/01/89
				JP	57154029 A	22/09/82
			_	US	4422477 A	27/12/83
US	5029614	A	09/07/91	NONE		